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Discussion on 15.10.2025
Homework due on 22.10.2025 at 16:00

Exercise Sheet 1 in

Scientific and Technical English for Computer Scientists

The exercise sheets consist of in-class exercises and homework. The in-class exercises take place in the second half of the lecture time slots. The homework, which is optional and ungraded, can be submitted via the "Homework" section in Moodle. The homework is subject to peer review.

Unless indicated otherwise, generative artificial intelligence assistants such as ChatGPT may be used, as long as you acknowledge how you use them as specified by the Institute's policy on plagiarism.[1] However, you may not use such tools to generate peer reviews for you. In addition, we strongly recommend that you do not use them to generate entire solutions, since this would defeat the purpose of the exercises.

In-class exercise 1-1 ***Abstract Abstracts*** Among the documents available in the "Materials" section in Moodle, you will find these three papers:

1. Donald E. Knuth and Peter B. Bendix, "Simple Word Problems in Universal Algebras," *Computational Problems in Abstract Algebra*, pp. 263–297, Pergamon Press, 1970.

2. Susan Owicki and Leslie Lamport, "Proving Liveness Properties of Concurrent Programs," *ACM Transactions on Programming Languages and Systems* 4(3), pp. 455–495, 1982.

3. Alejandro Russo, "Functional Pearl: Two Can Keep a Secret, If One of Them Uses Haskell," *ACM SIGPLAN Notices* 50(9), pp. 280–288, 2015.

The last reference claims to be a "functional pearl": a concise, elegant example of functional programming. Carefully read the *abstracts* of all three papers, then answer the following questions, referring back to the abstracts if necessary.

a) Which abstract did you like best? Why?

b) Which school of writing does each of the abstracts belong to?

[1] `https://www.medien.ifi.lmu.de/lehre/Plagiate-IfI.pdf`

c) Point out three differences you noticed in how the abstracts are written.

d) Choose one of the three abstracts, and write a brief review of it. Your review should be about 100 words. In your text, point out at least one aspect you like and at least one aspect you would change.

Homework 1-2 ***Paper Review*** Use Google Scholar[2] to search for some computer science papers. You can search for any subject that you have learned about in your courses, or anything else that interests you. For example, you could search for terms such as "object-oriented programming," "databases," and "finite automata." Skim some of the papers you find interesting, then choose one, read it carefully, and write a brief essay about it. Your essay should answer these questions:

a) In one or two sentences, what is the paper about?

b) What do you like about it?

c) What do you dislike about it?

d) Which school of writing does it belong to?

e) Did you find it hard or easy to read? Why?

f) Was it written for experts or novices?

g) What background knowledge does it assume? Are there any words you do not know and that are not immediately explained?

Upload the paper you selected along with your essay to Moodle. You can include the paper as an attachment to your submission.

[2] `https://scholar.google.com/`